

FAA'S CENTRAL REGION RUNWAY SAFETY PROGRAM REGIONAL ADMINISTRATOR'S WORKSHOP RECOMMENDATIONS MAY 4 & 5, 2000



WHAT'S WORKING:

AIRPORTS DIVISION:

- Improved signage, airport markings placement & lighting on Taxiways/Runways
- 24 hr. runway guard lights at some airports
- Runway guard lights at problem intersections in conjunction with hold short lines
- Surface Movement Guidance and Control System (SMGCS) - good
- Elevated Runway Guard Lights System (ERGLS) - good
- In-pavement lights
- Hold short markings double-sized & outlined in black
- Beaded paint
- Standardized taxi routes
- New signage at low-level airports
- Advisory Circular describing signage- well done
- Warning signs on back of construction barricades
- Additional perimeter roads to eliminate need to cross runways
- Annual certification inspections; daily self-inspections by airports

AIR TRAFFIC DIVISION:

- Require vehicles to be on tower frequency
- Runway Incursion Device (RID)
- Memory aids in ATCT for controllers/ownership of runway
- Tower visits by pilots/personnel operating vehicles on AOA
- Kansas City International (MCI): Has Letter of Agreement (LOA) between Air Traffic and Airport Authority (AA) that allows movement on taxiways by AA vehicular without communication...cuts down on ground control frequency clutter.

- Air Traffic Control Specialists (ATCS) on-airport familiarization rides in varying weather conditions
- Slow down phraseology
- Surface Incident Prevention Team (SIPT) meetings (Annual Airport Meetings)
- St. Louis, Missouri Spirit Airport (SUS) ATCS coordinate through one person to personnel conducting snow removal and mowing operations
- St. Louis' Lambert Airport (STL) coordinated with Trans States Airline to use different call signs for aircraft repositioning to and from maintenance facility and terminal building
- Airport facility tours
- Read back hold short clearances
- Aircraft Owner and Pilot Association (AOPA) partnerships for pilot awareness
- Additional ramp familiarization (class/driver training)
- Standardize air traffic phraseology for runway crossings
- Request for controllers to spend time on airport to see runway / taxiway from pilots perspective
- Airport ground vehicle pamphlet published by FAA
- FAA Remedial Training Program
- Improved coordination between local and ground controllers

FLIGHT STANDARDS DIVISION:

- Safety Seminars - Info to pilots (FS/AT) videos being shown
- STL FSDO worked with Trans States Airline to develop a Training Certification Program for mechanics to taxi aircraft
- Improved procedures for pilot training & procedures
- Increased Flight Standards Surveillance on Taxiing (Sterile Cockpit)

RUNWAY SAFETY PROGRAM OFFICE:

- WEB availability of Airport diagrams- (identifying hotspots)
- Runway safety initiatives program working well

AIRPORT FACILITIES IN CENTRAL REGION:

- Focus on training; AOA recurrent training
- Snowplows: Different colors, call signs and/or numbering
- Pre-establish routes for runway inspections
- Annual review of driving privileges on airports
- Annual Certifications - training of operators
- Airfield Inspections done during light traffic

AIRWAY FACILITIES:

- AF involvement/familiarization with Air Traffic

AIRPORTS, AIR TRAFFIC, and FLIGHT STANDARDS DIVISIONS:

- RIAT working well
- Heighten awareness of runway incursions
- Meetings and workshops where all players meet
- Getting the message out to all pilots (Letter to CFI's, pilot meetings & Letter to Airman)

MISCELLANEOUS:

- Improved communication & orientation involving all groups
- Professional users of the system are more vigilant and aware of the issues
- Dialogue: discussion heightens awareness?

WHAT'S NOT WORKING:

AIRPORT DIVISION:

- Optimal Airport design/funding
- Airport not tracking vehicle activities on airports
- LAHSO - better signage / lighting
- Inconsistent signage
- Lack of surface painted signs
- General aviation airports DO NOT HAVE SIGNAGE consistent with Part 139 airports
- Runway Guard Lights NOT STANDARDIZED
- Airport vehicles radios out dated - can't contact the tower on local control frequency
- Confusing Signage
- Cursive letters for surface painted signs are difficult to paint

AIR TRAFFIC DIVISION:

- Non-standard phraseology, e.g., "Promptly Cross," used in runway crossings
- STL: Runway 13/31
- Airport design at STL requires too many crossings
- Communications on ground frequency too congested
- Airport familiarization with existing and new ATCSs & other airport employees
- Runways sometimes used for other than Takeoffs & landings
- AA non-standard phraseology/lengthy clearances

- Not getting reports from Air Traffic on pilot deficiencies
- ATIS System is very burdensome to pilots
- LAHSO - Not well thought of
 - ✓ Training issues
 - ✓ Signage marking issues
- No Federal Aviation Regulation (FAR) for Pilot/Controller/Airport Operations Area (AOA) operator to read back/clarify
- Read-back requirements - Hear-back communication loop not closed effectively
 - ✓ Needs to be dual responsibility (pilot/controller/AOA personnel)

FLIGHT STANDARDS DIVISION:

- Amnesty Program not well advertised - convincing pilots it is amnesty
- Instructors not teaching students to operate in controlled environments
- Not teaching students airport signage
- Lack of compliance with English language requirement
- Knowledge of signage by pilot community
 - ✓ Lack of standardization of signage
- Pilot not automatically understanding airport signage
- Lack of education for GA pilots for non-towered airports (signs don't exist in trng environment, not exposed to them)
- 3 takeoff/landings to maintain currency is too minimal; no taxi requirements or exposure to all airport signage
- Complete training for controlled airports
- Lack of knowledge among GA pilots in controlled airport
- Some pilots taxi too fast to read airport signage; unenforced speed limits for aircraft and vehicles
- Recurrent testing of pilots, federally regulated, some type of pass/fail
- Pilots need to be accountable, lots of recurrent trng
- Fly into controlled airport every 90 days
- Training program for controlled airports
- Biennial flight review should have pass/fail section on controlled airport procedures
- Involve AOPA in this trng issue
- Getting flight instructors/pilots involved in training
- Not enforcing our own rules
- Communications discipline
 - ✓ Education (Emphasis on Standard Phraseology)
- Clearance - Pilot Procedures in Cockpit
 - ✓ Doing too much at one time
- Locally standardized taxi speeds for aircraft unless otherwise

- directed
- Enforce ground traffic speeds

RUNWAY SAFETY PROGRAM OFFICE:

- RY Safety Program not advertised - Too much junk mail to users
- Poor quality of Internet materials
- Timeliness of publishing changes to airport diagrams
- Not using technology that exists - way behind times (GPS)
- Getting word out to everybody
- Process of investigating RI flawed
 - ✓ Too much emphasis on discipline (performance) vs. why it happened and correcting problem.

AIRPORT AUTHORITIES AT AIRPORTS IN CENTRAL REGION:

- Taxi Routes -no standardization
- STL: When operating on the AOA out on taxiway, aircraft do not always hear changes/hold short instructions due to aircraft noise
- Airports: Security on movement area not sufficient
- Not expediting Runway Checks
- Vehicles not using perimeter roads to save time
- Some roads don't lead to FAA facilities (LOC, ILS, GS)

AIRWAYS FACILITIES:

- The lack of FAA funding required for FAA partnerships with instructors to teach signage

AIRPORTS, AIR TRAFFIC, and FLIGHT STANDARDS DIVISIONS:

- User meetings not being fully attended
- Disjointed procedures within FAA
 - ✓ FS/FSDO's/AF/AT/etc)

MISCELLANEOUS:

- Too much emphases on capacity vs. safety; change RSP
- Nighttime low visibility for ground operations?
- Back to basics program for both pilots and controllers, outreach to pilot community with partnership / CFIS
- Misinterpretations of the rules

WHAT'S NOT BEING DONE TODAY:

AIRPORT DIVISION:

- Adequate testing on airport signage by manufacturers
- Non-lighted signage at general airports
- Controller involvement in airport construction/design/pre-planning stages
- Markings on taxiways and runways - number or letters every 100 feet
- FAA requirement for annual refresher trng for ground vehicles
- Don't overlook all classes of carriers, especially cargo
- Signage: information there on requirements but certified Flight Instructor need to FOCUS on getting to users
- Training for everyone who are responsible for using signage - pilots, users, etc. (standardize)
- GA Airports are not always required to have FAA approved products
- Looking for more solutions/options at "hot spots" on airports to improve lighting
- Lack of signage at general aviation airports
- Non-standard signs at general aviation airport

AIR TRAFFIC DIVISION:

- Increase advertisement for Operation Rainchecks to increase participation
- Fund Operation Raincheck to support initiative
- Nighttime tours for controllers of AOA
- More remedial training vs. certificate action
- Requirement to provide feedback from pilots on misunderstood communications (read backs/cockpit disagreements)
- Partnerships with flight schools invited to FAA facilities
- Incorporate actual tapes of air traffic control (ATC) and pilot communications into training of all personnel operating on the AOA
- Update modeling tool used in determining airport capacity
- NOTAM System (outdated and doesn't work)
- Automated Flight Service Stations AFSS's not performing up to expectations
- Standardized phraseology
- Clearances are too long
- Reporting deviations to Flight Standards
- reporting in timely manner
- Early communication of expected runway assignments for takeoff

FLIGHT STANDARDS DIVISION:

- Ensure consistency of special emphasis on runway incursions in Bi-Annual Flight Reviews
- BFRs with emphasis on runway incursion avoidance. Consistency in standardization of items checked
- Require hearing test on Third Class Physicals commensurate with 1st & 2nd class
- Sterile cockpit resource management for Part 91 operations
- Taxiway training for everyone
- Promote newly introduced "Limited Amnesty" program (should include ATCS)
- Pilot Examiners not tested on signage
- Runway Safety Syllabus for flight instructors
- Requirement for general aviation (GA) pilots to be airport certified/familiar
- Requirement for pilots to attend annual Safety Seminars
- Additional mandatory training for recreational pilots

RUNWAY SAFETY PROGRAM OFFICE

- RI education training for all pilots
- Full participation by all users in RI reduction initiatives. (May be cost prohibitive)
- Every CFI gets tapes of production initiatives
- Publicizing initiatives: Civil Aviation Safety Team (CAST) / Joint Safety Initiative Team (JSIT)
- To support Airport Surface Detection Equipment (ASDE)/ ASDE(X) technology: delivery better prioritized
- Airport Movement Area Safety System (AMASS)
- Wide Area Augmentation System (WASS)
- Uniform implementation of standardized taxi routes
- Identify hot spots on published airport diagrams, i.e., Instrument Approach Plates (IAP), Airport / Facility Directory (AFD), etc.
- Have hot spot info available through DUATS/AFSS; Lessons Learned video
- Timeliness of fielding new equipment
- Not having things finalized before implementing program

AIRPORT AUTHORITIES AT AIRPORTS IN CENTRAL REGION:

- Audit the necessity for vehicle operations
- AA and AF coordination of RY activities with AT
- Anyone who has access to ramps/airports needs training
- Memory aids for ground personnel tailored to airport

AIRWAY FACILITIES:

AIRPORTS, AIR TRAFFIC, & FLIGHT STANDARDS DIVISIONS:

- Not enough riding along on the flight deck

MISCELLANEOUS:

- Information on AOA deficiencies not getting from pilots to airport management
- More reporting on cockpit disagreement
- FAA funding for continuing ground radio replacement program non-operations funding interval radio upgrades
- Mailing list for non-towered airports added to local CFI's checklist?
- Inconsistent application of pilot visual aids
- Standardization within the FAA, region to region or LOB differences
- Not enough use of Progressive Taxi Requests and Assistance

ADVICE YOU'D LIKE TO OFFER THE FAA

AIRPORTS DIVISION:

- Communication between pilots and Airports Division
- Expand Non-Part 139 requirements
- Test requirements for airport markings and signage
- Implement double-wide Hold Markings for all airports
- Change the lighting standards back to alternating amber/green; centerline taxi light past hold line
- Use black background on the face of ERGLS
- More surface painted signs
- Allow block letters for surface painted signs
- Require standard traffic patterns at uncontrolled airports
- Make signage the same at all airports
- Improve certification requirements for new signs
- Develop 3-dimensional signage airport plans on Internet

AIR TRAFFIC DIVISION:

- Close Runway 13/31 at STL
- NATCA rep on ACE RIAT team
- FAM trips for pilots to ATCT's (especially CFI's)
- Expedite technological advances for handling traffic on the ground
- Provide ASDE to all CAT III ILS Airports
- Controllers staffing (Controller staffing needs to be looked at and

- compared to traffic growth)
- Limit ATIS to critical airport information
- Drop LAHSO

FLIGHT STANDARDS DIVISION:

- Bi-annual flight review to include airport movement procedures
- Require at least one safety mtg/year for GA pilots
- Expand Flt Standards "Wings" program on internet/include distance learning in lieu of safety mtg
- Review requirements for pilots to be given more training
- Add more airport markings to pilot written exam
- Require airport markings as part of initial training
- Require radio-equipped aircraft to use radio-uncontrolled airport
- English speaking, improve enforcement (State Department involvement),
- Expand use of new technology
- Redefine tasks while taxiing
- Bi-Annual Flight Review should require emphasis to runway incursions
- Computer-based testing for certification to enter airports

RUNWAY SAFETY PROGRAM OFFICE

- Build more towers at busy, non-towered airports
- Build more airports
- Involve Air Traffic in airport design and upgrade
- Link photos to airport diagram on web page
- Redefine runway incursions (to include non-controlled airports, etc)
- Use this forum to get message to Congress, need funding
- Lots of time spent 10 years ago in DC on signage, commitment not there to embrace new technology (AMASS)
- Green light/red light switch tested in JFK but never pushed
- R & D funding must be expanded
- Technology changed very little
- R & D funding wasted (continued use of off-the-shelf software)
- Limited # of runways with increased traffic
- Upper limit on airports...maximum slots
- National support of RID
- Upgrade controller equipment
- Push through effort to upgrade ATCS equipment
- Incorporate off-the-shelf available technology... provide support - manufacturer may not be in business a long period of time, off-the-shelf technology doesn't get translated back to FAA
- Radios: Better way of getting radios for ground vehicles - upgrades
- Consider human factors when designing airport signage vs. aircraft

- cockpit design
- Get equipment installed in a timely manner
- Streamline - Cut the Red Tape
- Develop state-of-the-art products
- An acronym before crossing a runway:
 - ✓ PSALM
 - Position
 - Speed
 - Ask
 - Look
 - Monitor
- Standardization within regions of FAA (example Website)
- Require Flight Instructors to attend at least one FAA-sponsored seminar annually
- Expand future efforts in partnership programs
- Implemented projects should have mandatory partnership
- Educate ATC on reporting runway incursions
- ATC required to attend same training of Airport Operations Area (AOA)
- Require annual refresher training for AOA
- Require AOA/ATC communication Meetings
- Some type of data link for FAA (similar to air carriers)
- Market information to promote understanding
- More flight information on-line (Internet & data bases)
- Separate training videos for aircraft and ground vehicles
- ✓ Update videos
- ✓ Also need to know other's areas (Cross-Training)
- Revisit LAHSO Procedures - Keeps Changing
- No Knee-Jerk Reaction to Accidents/Problems
- ✓ Then not communicated causes more problems

AIRPORT AUTHORITIES AT AIRPORTS IN CENTRAL REGION:

- Mandatory re-currency training requirements for all drivers on AOA
- ✓ For vehicles
- ✓ For nighttime
- Build more & utilize service roads on inboard & outboard taxiways
- FBO's, Train the trainer, etc

AIRWAYS FACILITIES:

AIRPORTS, AIR TRAFFIC, and FLIGHT STANDARDS DIVISIONS:

MISCELLANEOUS

- Emphasis on things that improve Situations
- Airline HUB Concept adds to the congestion of airport

WHERE DO YOU WANT THE FAA TO FOCUS TIME AND ENERGY

AIRPORTS DIVISION:

- Look into cheap and immediate easy fixes such as surface painted signs using block letters
- Require driver training for all FAR Part 139 certified airports
- Standardized signage used at all airports both controlled and uncontrolled
- Consider different colors for signage (i.e. fluorescent for holdshort,/ lime green) for greater contrast and recognition

AIR TRAFFIC DIVISION:

- Encourage/require controllers be familiar on **all** airport operations
- Better communication between ATC and Flight Standard District Offices
- Regional RIAT Team:
 - ✓ Needs NATCA person on Team
 - ✓ Encompass more than FAA Regional Office employees (outside FAA)
 - ✓ Diversity as demonstrated by this Conference

FLIGHT STANDARDS DIVISION:

- All user education
- More user friendly information for FAR Part 91 operators and pilots
- Speed up AC procedures and don't implement until final
- Better surveillance of pilot examiners

RUNWAY SAFETY PROGRAM OFFICE

- Funding for airport improvements/air traffic equip. (ASDE/AMASS) / technology (e.g. GPS)
- Look at and study human factors considerations
- Education/training/awareness for pilots, controllers, airport operators
 - ✓ Require remedial training and re-currency training for all on the

AOA

- Improving communication to all levels – keep it simple
- Include uncontrolled airports in runway incursion program
- Emphasis on airport design issue (eliminating hot spots)
- Meet with controllers, airport on new construction projects...get input from controllers during planning stages
- Reporting for non-towered airports...to whom?
(If incident) form to do this, need FSDO phone #s disseminated.....single 800# for reporting (safety hotline) specific for pilots, who they call, etc.
- Pass info all the way up and down the information chain
- Use FAA academy for FAA personnel, tailor programs for sites?
- Current Computer Based Instruction (CBI)courses could be tightened up...need specifics for specific airports, etc.
- Configuration / design of cockpit may obstruct vision (cannot see signs, curvature of cockpit), especially in low visibility
- Air traffic controllers don't always have access to websites at ATC facilities (or access is very limited) ATCS's need internet access
- Education
- Continue the work already in progress and collaboratively with industry
- Increase information output
- Define exactly "What are critical issues?" regarding runway incursions
- Streamlining the process on reporting pilot deviations
- Follow-up from this meeting
- Need on-going, constant evaluation and follow-up on Initiatives, Procedures, and Recommendations.
- Clarify lines of communication within FAA and align disjointed procedures
- Continue effort on Radio anti-blocking communication frequency
- Updating technology; i.e. communication & surveillance
- More focus on getting the information out to all Pilots through mass mailings, FAA web sites, industry trade journals, aviation newsletters, etc
- ✓ Don't limit ways to disseminate - use as many ways as possible

AIRPORT AUTHORITIES AT AIRPORTS IN CENTRAL REGION:

AIRWAYS FACILITIES:

AIRPORTS, AIR TRAFFIC, and FLIGHT STANDARDS DIVISIONS:

- Improve training to entire aviation community

MISCELLANEOUS:

- Only seem to fund “one size fits all” efforts, need follow through on local levels, breaking mold....get down to local level (not easily tracked)?
- Education for airport consultants to be aware of requirements, states have grass roots level
- Education Internally (ALL)
- Use new Technology
- Red tape reduction